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ABSTRACT

When NASA announced in 1960 that private enterprise would produce communication satellites, rather than the Federal government, several large corporations proposed a joint venture involving a group of international carriers and electronic manufacturers, while American Telephone and Telegraph requested sole ownership. At that time, the Federal Communications Commission (FCC) appointed an ad hoc working group to formulate preliminary recommendations for a general course of action. This group favored a narrow base of ownership maintained solely by international carriers engaged in international telephone and telegraph communication. The Justice Department and the Kennedy Administration disagreed with the FCC proposal, however, and sought a joint satellite venture that assured competition and haste in production. After great debate, Congress passed a compromise bill that provided for a private communication satellite corporation (COMSAT) with stock divided equally between the public and the communication carriers. In addition, provisions in the bill allowed for supervision by NASA, the State Department, and the FCC. (MAI)

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# The Federal Communications Commission and the Communications Satellite Corporation: A Question of Ownership

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## PREFACE

Certain technological innovations can have an important impact on the structure and practices of an industry. If not absorbed into the structure of existing companies, the innovation may catalyze new companies. The new companies could radically alter existing competitive relationships, and if the industry is regulated by government, create new regulatory problems.[1]

Communications satellites were a technological innovation capable of altering the structure and practices of the federally regulated United States international communications common carrier industry. When communications satellites became feasible in the late 1950s and early 1960s, they threatened to make existing long distance telecommunications facilities obsolete. In addition, communications satellites posed new regulatory problems.

The purpose of this study is to examine the role of the Federal Communications Commission in determining the ownership of the Communications Satellite Corporation (COMSAT). COMSAT, which was created by the Communications Satellite Act of 1962, is the designated instrument of the United States for non-governmental international communication by satellite.[2]

The questions this study answers are: What was the position of the FCC on ownership of the satellite system? Did this position change? If so, why? Would the position of the FCC protect the investments in existing facilities of the companies it regulated?

This study does not attempt to treat in detail the roles of all the government agencies and departments involved in determining the ownership of COMSAT. Nor does this study examine areas which digress from the ownership issue, such as foreign policy considerations.[3] The consequences of the Communications Satellite Act are examined in the author's forthcoming study of American involvement in the International Telecommunications Satellite Consortium (INTELSAT).[4]

## Background: Structure and Regulation of the U.S. International Communications Common Carrier Industry

The Communications Act of 1934 provides for regulation of the United States domestic and international communication common carriers by the Federal Communications Commission.[5] In 1961, with the expansion of international carriers into communications satellites likely, the Commission's regulation of communications carriers was inadequate. The Commission's Common Carrier Bureau was hampered by insufficient manpower and had failed to define a reasonable rate of return. Some members of Congress feared that the additional responsibility of the proposed communications satellites would add to the Commission's inefficiency in regulating communications carriers.[6]

The United States communications common carrier industry is an oligopoly dominated by the largest corporation in America, the American Telephone and Telegraph Company. The industry is divided into voice (telephone) and record (telegraph) services. AT&T controls eighty-five percent of domestic telephones, while Western Union monopolizes domestic telegraphy.

Through its high-frequency radio and submarine cable facilities, AT&T supplies virtually all telephone service between the United States and overseas points.[7] Telegraph service, however, is supplied by several competing firms.

The largest of these, Western Union, RCA Communications (a subsidiary of the Radio Corporation of America) and the American Cable and Radio companies (subsidiaries of International Telephone and Telegraph) offer worldwide services.[8] Press Wireless also provides a worldwide telegraph service, but its message traffic is restricted to press material.[9] Though each of these record carriers has its own transmission facilities, each supplements its facilities by leasing channels on AT&T's submarine cables.

Among its statutory obligations, the FCC is required to regulate the communications carriers' rates, limiting profit to a reasonable return on plant investment. However, the FCC has regulated voice carriers differently from the way it has regulated record carriers. For example, the FCC has held formal investigations and hearings to examine the rate levels and structures of the international record carriers. For the record carriers, the Commission chose formal proceedings because

> the conflicting interests of the international [record] carriers stemming from. . .competition complicate the ratemaking task and this generally necessitates extensive hearings to resolve the ratemaking issues in this field.[10]

Because there was no competition in the voice field, the Commission regulated AT&T in an informal manner. As of 1961 the FCC had never held a formal hearing on AT&T's domestic or international rates. Instead, AT&T would submit financial reports to the Commission which were examined "to assess the reasonableness of the Bell System's

overall earnings."[11] If the Commission felt "overall earnings were at a level to warrant rate reductions," it held informal negotiations with AT&T.[12]

Booz, Allen and Hamilton, management consultants, investigated the FCC for the Bureau of the Budget in 1961 and found that the Commission's Common Carrier Bureau was inadequately staffed to meet its statutory obligations. Though the communications carrier industry had expanded rapidly since World War II, the Commission had "fewer employees available for common carrier regulation in 1962 than. . . in 1950."[13] The study also found that

> the important functions of surveillance and regulation of common carrier rates and rate base have not been adequately undertaken. . . . While the staff has sought to establish essential criteria for judging rates of return, the Commission, in fact, has established no firm criteria governing such rates of return. . . .[14]

FCC regulation of AT&T's international rates reflects the problems Booz, Allen and Hamilton discovered. According to the Commission's chairman, prior to 1960 AT&T's revenues from overseas services "constituted a small fraction of [its] total service revenues. . . ." For this reason and due to "very limited [FCC] staff and resources, special attention to the overseas rates did not appear to be warranted."[15]

However, in 1961 the advent of satellites as a possible means of international communication, together with the swelling of AT&T's overseas revenues (they grew from $14.5 million in 1955 to $40 million in 1960) concerned the FCC.

Consequently, in June 1961 the Commission began its first formal study of AT&T's overseas rates.[16]

## An AT&T Proposal

The launching of Sputnik I on October 4, 1957 stimulated space activity in the United States. On December 18, 1958--less than one year after the first American satellite--the U. S. Air Force launched Project Score, the first American communications satellite.

In 1955, Dr. John Pierce of Bell Telephone Laboratories had suggested a system of orbiting microwave stations for international communications.[17] When launch capability made such a system feasible, AT&T formulated plans for a private commercial communications satellite system.

AT&T approached the FCC on July 11, 1960 with a plan for a worldwide telecommunications service utilizing 50 random orbit satellites. The cost of the system, which would provide 600 telephone circuits to 13 pairs of earth terminals, was estimated at $170 million. AT&T proposed to share the costs (as it had with transatlantic cables) with foreign firms such as the British Post Office.[18]

In September 1960, AT&T executives approached NASA administrator T. Keith Glennan proposing that NASA provide launch and tracking services for an experimental AT&T communications satellite on a cost-reimbursable basis.[19] Several meetings between AT&T executives and NASA officials followed. Glennan announced on October 12, 1960 that communications satellites would be left to private enterprise.

He also stated that NASA would provide "cost-reimbursable launching support to private industries for their experiments with communications satellites."[20] Following this announcement, AT&T applied to the FCC on October 21, 1960 for authority to use frequencies allocated for satellite communications.

AT&T executives proposed to NASA officials in December 1960 that AT&T become the chosen instrument in satellite communications for the United States. James Webb, who in 1961 succeeded Glennan as Administrator of NASA, recalled that AT&T's proposal stated,

> If we can sit down and agree as to the specifications for a communications satellite, we will build it. . . and become the instrument if the Government can provide us with all of the franchises and other things necessary. So we will do the whole job with our own money.[21]

President Eisenhower, however, preferred not to accept AT&T's offer to become the sole instrument of satellite communications for the U. S. He believed that ownership of the satellite system should be determined after all interested firms submitted bids. On December 31, 1960, the White House released a policy statement on communications satellites in which Eisenhower stated:

> This nation has traditionally followed a policy of conducting international telephone, telegraph and other communications services through private enterprise subject to Governmental licensing and regulation. We have achieved communications facilities second to none among the nations of the world. Accordingly, the government should aggressively encourage private enterprise in the establishment and operation of satellite relays for revenue-producing purposes.[22]

President Kennedy was opposed to Eisenhower's bidding plan. In his first State of the Union message on January 30, 1961, Kennedy called for the development of a communications satellite system. Though he made no public statements about the ownership of the system, he privately stated that "he was. . . opposed to the Eisenhower competitive bidding proposal whose actual outcome, he believed, would turn over satellite communications to the AT&T."[23]

## Formulation of FCC Policy

The FCC became increasingly involved in the formulation of government policy on communications satellites under the direction of Newton Minow. When Minow became chairman of the FCC in February 1961, he stated that communications satellites would "require one of the highest priorities for the Commission's attention."[24] Still, many of the considerations which guided the Commission's actions had been formulated prior to Minow's appointment.

On September 26, 1960, T.A.M. Craven, an FCC commissioner, was appointed chairman of the Ad Hoc Working Group on Space Satellite Communications of the Department of State's Telecommunication Coordinating Committee (TCC). The Ad Hoc group included representatives from many government agencies and was formed to prepare policy recommendations on communications satellites.[25]

By mid-February 1961, the Ad Hoc group had formulated preliminary conclusions and recommendations for a

general course of action. The group agreed that the system should be owned and operated by private enterprise. Craven wrote:

> The public's international radio communication system by means of satellite relays should be established and operated by private enterprise subject to regulation of the communications aspects by the Federal Communications Commission and also subject to the regulation of the launching and orbiting aspects by NASA.[26]

Soon afterwards, the FCC and NASA signed a memorandum of understanding dividing their jurisdiction of communications satellites into those areas recommended by the TCC Ad Hoc group. NASA and the FCC also accepted the TCC Ad Hoc group's recommendation that the system be private. They stated:

> In accordance with the traditional policy of conducting international communications services through private enterprise subject to Governmental regulation, private enterprise should be encouraged to undertake development and utilization of satellite systems for public communication services.[27]

The Ad Hoc group also recommended that the FCC begin proceedings to "entertain applications from private enterprise for a certificate to establish and operate a common carrier" for satellite communications.[28] Besides AT&T, other firms, including Lockheed Aircraft, RCA, ITT and General Electric, had expressed interest in establishing a communications satellite system. Because of the competing interests and the complexity of the issues (such as anti-trust considerations), the Commission began plans in early March 1961 for a formal proceeding to investigate communications

satellites.

Prior to announcing formal proceedings, however, the FCC sought advice from the Antitrust Division of the Department of Justice on possible antitrust considerations raised by the communications satellite system. Henry Geller, Associate Counsel of the Commission, met with George Reycraft, Chief of the Special Trial Section of the Antitrust Division on March 21, 1961. They discussed two proposals:

1) AT&T's proposal to become the common carrier in the field (leasing its facilities to other carriers) and

2) A Lockheed, RCA Communications and General Telephone and Electronics proposal for a joint venture to include several international carriers and electronics manufacturers.

The joint plan was conceived by the companies involved because of the substantial investment required in the system. AT&T, which was prepared to invest $175 to $300 million in the system, was the only firm with the financial resources to consider a solo enterprise. According to Geller, Reycraft stated that the Antitrust Division was "greatly concerned that AT&T will. . . dominate this new vital field as it has done in many areas in the past."[29] According to Geller, the specter of AT&T domination spurred Reycraft to assure him that the Antitrust Division "would be most cooperative with respect to any 'joint venture' antitrust problems."[30] In addition, Reycraft repeatedly stated "that in any joint venture, the Division would want assurance that AT&T would not be the controlling or dominant party. . . ."[31]

Also prior to announcing formal proceedings, the Commission considered government ownership of the communications satellite system. Members of the Legal Staff studied government ownership and recommended that the system be privately owned.[32] Minow and Craven met with the President's Science Advisor, Dr. Jerome Wiesner, at the White House on March 24, 1961 to discuss government ownership. Wiesner concluded that this issue could be decided only after interagency meetings of high-level Administration officials.[33]

## Docket 14024

The Commission released its Notice of Inquiry in Docket 14024 (An Inquiry Into the Administrative and Regulatory Problems Relating to the Authorization of Commercially Operable Space Communications Systems) on April 3, 1961. It was evident that it had carefully considered the Department of Justice's objections to a system wholly owned by AT&T. Instead of considering proposals for a single company system, the Commission asked for comments on and proposals for a joint enterprise. The Commission further asked for comments on how

> participation in such system or systems by all present and future international communication common carriers and others can best be effectuated on an equitable, non-discriminatory, and lawful basis.[34]

Proposals were submitted by the American Securities Corporation (for the future Western Union International, Inc.),

AT&T, General Electric, General Telephone & Electronics, Hawaiian Telephone, ITT, Lockheed Aircraft Corporation, Press Wireless, RCA, and Western Union. The Department of Justice also responded, but commented only on antitrust matters.

The respondents agreed that a single communications satellite system financed and owned by private enterprise would best serve the public interest, but they differed on the composition of ownership. The different ownership proposals were:

1) AT&T and ITT-favored ownership "limited to international communications common carriers, such entities participating in ownership to a degree consistent with their relative use of the system. . . ."[35]

2) General Telephone & Electronics proposed an ownership base limited to both domestic and international communications common carriers.

3) Lockheed, GE and Western Union favored ownership by domestic and international communications common carriers and equipment manufacturing companies.[36]

The Lockheed, GE and Western Union proposal met most closely the requirements the Department of Justice felt were consistent with antitrust laws. In its response, the Department of Justice stated:

1. All interested communication common carriers to be given an opportunity to participate in the ownership of the system;
2. All interested communication common carriers to be given unrestricted use on nondiscriminatory terms of the facilities of the system whether or not they elect to participate in ownership;
3. All interested parties engaged in the production and sale of communication and related equipment be given an opportunity to participate in ownership of the system; and

> 4. All interested parties engaged in the production and sale of communication and related equipment be given unrestricted opportunity to furnish such equipment to the system whether or not they elect to participate in ownership.[37]

Requirements number one and three were clearly designed to prevent domination by AT&T, which was likely if the system was restricted to international carriers. By broadening the ownership base, the Department of Justice intended to make it difficult for AT&T to dominate. Requirement number three was also designed to counter AT&T's vertical integration. Because Western Electric, AT&T's manufacturing subsidiary, would have an interest in the system through AT&T, the Department of Justice believed that other manufacturers should also have the opportunity for ownership. Assistant Attorney General Lee Loevinger commented,

> . . . if you confine this to the international common carriers, what you are doing is giving the one single largest equipment manufacturer ownership interest because AT&T owns Western Electric. . . and Western Electric will then be a part of the ownership of the international communications carrier and we think that if Western Electric has an ownership interest that its competitors should have an equal position.[38]

The Commission's position on the ownership base differed substantially from that of the Department of Justice. FCC staff members studied the various ownership plans and recommended that the Commission select a system owned solely by international carriers. Systems owned by both domestic and international carriers or one owned by carriers and manufacturers were not recommended because

> (a) The organization would be bulky and inefficient due to the almost unlimited number

of possible participants.

(b) This would be a complete inconsistency with past practice of having only the regulated user (the international carriers), handle the international business.[39]

The Commission accepted the staff recommendation and its First Report issued May 24, 1961, stated that only a joint venture "composed only of existing common carriers engaged in international telephone and telegraph communication is deserving of consideration. . . ."[40] The Commission gave the following reasons for choosing this type of ownership:

(a) It appears to be generally accepted that because of considerations of practical economics and technical limitations, it will not be feasible for some time to come to accomodate more than one commercial satellite system.

(b) Communication via satellite will be a supplement to, rather than a substitute for, existing communication systems operated by the international common carriers, thereby becoming an integral part of the total communication system of each such carrier.[41]

The Commission also chose this ownership base because the international carriers were willing to form a joint venture and were experienced in international communications. Aerospace and communications equipment manufacturers were to be excluded from the ownership base because their participation "may well result in encumbering the system with complicated and costly corporate relationships" and would disrupt "operational patterns that have been established in the international common carrier industry. . . ."[42]

The FCC's approach to the ownership issue at this point was hardly innovative. The Commission's belief that communications satellites would supplement rather than replace existing methods of international telecommunication can be regarded as protection of the substantial investment the carriers had in such facilities. The Commission was obviously interested in preserving the status quo (e.g. concern for disruption of "established patterns"), and for a large part shared the belief which AT&T presented in Docket 14024. Communications satellites, AT&T stated, "need not disturb the existing pattern of regulation or affect the competitive position of the carriers."[43]

Though the FCC differed with the Department of Justice on the ownership base, the Commission included two of the Department of Justice's considerations in its First Report. First, the Commission would require the joint venture to have competitive bidding on equipment "to insure that there will be no favoritism in the procurement of communications equipment required for the construction, operation and maintenance of the satellite system."[44] Second, the joint venture must allow international common carriers "equitable access to, and non-discriminatory use of, the satellite system, under fair and reasonable terms," regardless of whether the carrier had invested in the joint venture.[45]

## Objections to the First Report

Shortly after the Commission issued its First Report in Docket 14024, General Electric and General Telephone and Electronics filed petitions for modification of the First Report. General Electric requested that ownership of the joint venture envisaged by the First Report include the general public, domestic and international carriers, and aerospace and communications equipment manufacturers. General Telephone's petition requested that ownership include participation by domestic carriers.[46]

The Commission, however, had planned a conference for June 5, 1961 to consider plans and procedures for the establishment of the joint venture. Despite the petitions, the conference was held. It was attended by representatives of the international and domestic carriers, aerospace and communications equipment manufacturers and government agencies.

Chairman Minow opened the conference with a prepared statement which said in part:

> At the outset we emphasize that it is not the purpose of this conference to review the merits of the Commission's belief that only the international carriers should presently participate in such a venture. . . . Accordingly, we request that the participants today direct their comments to the precise objective of this conference--exploration of the manner in which the organization of a suitable joint venture by the international carriers can proceed both quickly and satisfactorily.[47]

Minow also reiterated the Commission's objectives that the joint venture must meet 1) competitive bidding on procurement

of equipment and 2) non-discriminatory use of the satellite system by all international common carriers, regardless of their investment in the system.

Despite Minow's statement, John James of the Department of Justice urged that

> the Commission consider the desirability of expanding the base of ownership of the satellite communication system. We believe that a further expansion of ownership and participation in the joint venture will reduce the possibility that the system will be controlled by a single company. . . .[48]

It was also suggested at the conference that an ad hoc committee composed of international carriers be created to develop a plan of organization for the joint venture. The Commission decided to defer consideration of this proposal until it acted upon the General Electric and General Telephone petitions.

## President Kennedy's Statement On Communication Satellite Policy

Three days after the June 5 conference, Minow met with Frederick G. Dutton, special assistant to the President, and Dr. Jerome Wiesner. All three agreed that there was a need for greater discussion of communications satellites among different agencies and recommended that President Kennedy ask the National Aeronautics and Space Council for a policy statement on communications satellites.[49]

President Kennedy wrote to Vice President Johnson, chairman of the Space Council, on June 15, 1961 requesting "studies and government-wide policy recommendations for

bringing into optimum use at the earliest practicable time operational communications satellites."[50] Following this letter, several meetings with representatives of the Atomic Energy Commission, Bureau of the Budget, Department of Defense, FCC, Department of Justice, NASA, Office of Civil and Defense Mobilization, Department of State, and Office of the Science Advisor were held. On July 7 a policy statement was drafted, and on July 14 the policy statement was unanimously approved by each of the agencies listed above.

The July 14 NASC Policy Document stated that private enterprise should be encouraged to establish and operate the communications satellite system. Because of the various private ownership plans, the following criteria were suggested for the evaluation of

> recommendations for private ownership of the U.S. portion of the system:
>
> a. non-discriminatory use of and equitable access to the system by present and future communications carriers;
> b. effective competition, such as competitive bidding, in furnishing equipment purchased, leased, or otherwise acquired from non-U. S. government sources;
> c. full compliance with antitrust legislation and with the regulation of rates, licenses, frequencies, etc. by the appropriate government agencies.[51]

Vice President Johnson submitted the Space Council's report to President Kennedy on July 16. Kennedy included these criteria in his July 24, 1961 Statement on Communication Satellite Policy, which favored private ownership.

In addition to the criteria which the Space Council recommended, the President's statement included two "policy requirements":[52]

> Structure of ownership or control which will assure maximum possible competition; and
> Development of an economical system, the benefits of which will be reflected in overseas communication rates.[53]

Formation of the Ad Hoc Carrier Committee

On the day following President Kennedy's statement on communications satellites the FCC announced a Supplemental Notice of Inquiry calling for the formation of an ad hoc committee. The committee would be composed of international communications carriers and prepare plans for a joint communications satellite system. The Commission also released a Memorandum Opinion and Order which dismissed the petitions of General Electric and General Telephone.

In the Supplemental Notice of Inquiry the Commission invited the following international communications carriers to participate as members of the Ad Hoc Carrier Committee: American Cable and Radio, American Telephone and Telegraph, Hawaiian Telephone, Press Wireless, Radio Corporation of Puerto Rico, RCA Communications, South Puerto Rico Sugar Company, Tropical Radio Telegraph Company, United States-Liberia Radio, and Western Union.

The carriers were directed to prepare a plan of organization for the joint venture, which would be required to

> prevent any single participating carrier from being in a position to dominate or control the. . .

> system to the detriment of any other common carrier. . . and insure that there will be no favoritism in the procurement of communications equipment. . . .[54]

The Commission, acting with unusual dispatch, also directed the committee to submit the organizational plan for the joint venture before October 13, 1961.

John Nordberg, Chief of the Common Carrier Bureau, E.W. Allen, Chief Engineer, and Max Paglin, General Counsel of the Commission, examined the General Electric and General Telephone petitions and felt that there were several alternative approaches the Commissioners could consider:

1) The Commission could deny both petitions and let the First Report stand without modification.

2) The Commission could deny GE's petition, but allow GE and other respondents in Docket 14024 to participate in the discussions of the Ad Hoc Carrier Committee.

3) The Commission could grant GE's petition and modify the First Report to provide for broad participation in the ownership of the joint venture.

4) The Commission could grant GT&E's petition, allowing domestic carriers to participate in the ownership of the joint venture.[55]

Nordberg, Allen, and Paglin unanimously recommended the Commission's adoption of the first approach. Technically, the Commission had made no <u>final</u> policy decision on the ownership issue in the First Report and considered the Ad Hoc Carrier Committee as part of the "process of gathering information. . . ."[56] If the first approach was adopted, though their petitions would be denied, GE and GT&E would be permitted to provide further information after the Ad Hoc

Carrier Committee's plan had been submitted. The second approach, it was felt, would complicate and prolong the Ad Hoc Carrier Committee's deliberations. The third and fourth approaches would provide for broad-based ownership (which the Department of Justice had advocated), but as the Commission had stated in its First Report, this might encumber the system with "complicated and costly corporate relationships. . . ."[57] The Commissioners agreed with their staff and adopted the first approach, which dismissed both petitions.

The Commission's decision to dismiss both petitions was, in essence, a reaffirmation of the reasoning behind the position taken in the First Report. GE, in its petition, believed such a system would require complex fusion of aerospace and communications technology, which would necessitate ownership by manufacturers as well as carriers. The Commission, as shown, adopted a vastly different position.

GE's petition also stated that the First Report failed to satisfy the requirements established by the Department of Justice. This was true, but after GE filed its petition, the Department of Justice substantially modified the requirements a joint communications satellite venture would have to meet.

In testimony before the House Committee on Interstate and Foreign Commerce on July 26, 1961, Lee Loevinger, Assistant Attorney General and head of the Antitrust Division, stated four requirements which the Department of Justice

then felt a communications satellite system must satisfy:

> (a) To assure maximum competition the satellite communication system, if it is to be privately owned, should be so organized that no single company is able to dominate the system through ownership or through patent control.
> (b) All communication common carriers should have equitable and nondiscriminatory access to the system.
> (c) All interested manufacturers should have an unrestricted opportunity to participate in the furnishing of equipment.
> (d) The results of research and development conducted under Government contract or supported by public funds should be available to all companies interested in satellite communication.[58]

Loevinger called this a "restatement of different, slightly different, conditions at a different stage in our thinking and our development, respecting this whole problem."[59] However, when these requirements are compared with the requirements the Department of Justice submitted to the FCC on May 5 (see pp. 10-11), it is obvious that the Department of Justice had abandoned its advocacy of a broad ownership base. That position, according to Loevinger, had been abandoned "so long as the structure of ownership is such that there is an assurance of competition and not single company domination."[60]

When questioned as to why the Department of Justice had modified the four criteria, Loevinger was evasive:

> Mr. Loevinger. We are contemplating certain standards that we think should be considered, that happens to be four in number. . . .
> The fact that they are four, and previously we also had four, is purely coincidental. These are different standards for different purposes.
> Mr. Dingell. This is a significant change of decision on the part of your Department, is

it not?
Mr. Loevinger. Well, how significant you think it is is a matter of opinion. The only point as to which I believe there is any significance--or there is any change--is a somewhat less doctrinaire insistence that the participation of all interested. . . should be on an ownership basis.[61]

According to Minow, the modification of the Department of Justice's requirements was not the result of negotiation between the Department and the Commission. Minow stated that based on his contact with Department of Justice officials, the Department decided to drop the requirement that manufacturers be allowed to participate in the system's ownership because only a few manufacturers were interested.[62]

Report of the Ad Hoc Carrier Committee

Congressional interest in communications satellites increased immediately after President Kennedy's July 24 policy statement and the release of the Commission's Supplemental Notice of Inquiry and Memorandum Opinion and Order. Though there were no legislative proposals on communications satellites before Congress, four congressional committees held hearings on this subject throughout August 1961.[63]

Some hearings, such as those before the Communications Subcommittee of the Senate Commerce Committee, focused on technical aspects such as spectrum allocation for communications satellites. The ownership issue was most closely examined by the Subcommittee on Monopoly of the Senate Select Committee on Small Business, which held hearings on

August 2, 3, 4, 9, 10, and 11.

Sen. Russell Long, chairman of the Subcommittee on Monopoly, was concerned with AT&T domination of communications satellites. He believed that the Commission's decision to include only international carriers in the Ad Hoc study would preclude a broad ownership base. He also believed that limiting ownership to international carriers would impede rapid development of the satellite system, because the carriers would attempt to protect existing facilities from obsolescence. After six days of testimony from government officials (including Loevinger) and representatives of firms that had responded in Docket 14024, the Subcommittee recessed until the Ad Hoc group submitted its report to the Commission. It reconvened on November 8 to examine the Ad Hoc report.[64]

Despite assurances from Chairman Minow that the Commission's decisions so far in Docket 14024 did not "constitute final action" on the ownership of a communications satellite system, its position on composition of the Ad Hoc Carrier Committee indicated a strong bias toward ownership by only the international carriers.[65] Two actions were motivated, in part, by a belief that the Commission had made up its mind on the ownership issue--a letter to President Kennedy from thirty-five members of Congress, and General Electric's decision to withdraw its application for participation in ownership of communications satellites.

On August 24, 1961, Representative Emanuel Celler, chairman of the House Committee on the Judiciary and its Antitrust Subcommittee, and thirty-four other members of Congress sent a letter on communications satellites to President Kennedy. The letter stated, "The FCC orders appear for all practical purposes to determine that the satellite communications system is to be owned and operated by this group of ten 'international carriers.'"[66] The letter urged that the Government develop the communications satellite system and that determination of the ultimate ownership of the system be deferred until the system was operational. If an ownership decision was going to be made in the immediate future, the signers of the letter believed that the system must

> (1) afford all interested United States communications common carriers, domestic as well as international, opportunity to participate in ownership of the system; and
> (2) afford all interested communications and aerospace manufacturers opportunity to participate in ownership of the system.[67]

AT&T's "monopoly position" and its "hold on the American economy" were cited, and the signers believed that "only by insisting upon the widest participation of all interested communications and aerospace manufacturers and operators can there be any hope that such a monopoly can be forestalled in this new and vital field."[68] Lawrence F. O'Brien, special assistant to the President, responded to the letter on September 1, 1961: "It is not possible, if we are to move swiftly, to delay decisions as to ownership and control until

after the entire system becomes fully operational."[69]

Shortly after this, General Electric informed the Commission that it was no longer interested in possible ownership participation in the communications satellite system. Joseph Kittner, attorney for GE, met with Minow and told him that "General Electric had concluded from the Commission's pronouncements thus far that the Commission favored a communications satellite venture with ownership limited to international carriers. . . ."[70] GE believed that a modification of the Commission's preference for only international carrier ownership was unlikely. Consequently, the company chose, instead, to concentrate on the production of space vehicles.

When the Ad Hoc Carrier Committee submitted its report to the Commission on October 12, 1961, few interested observers were surprised by its recommendations. As Representative Celler wrote to Minow, "The composition of the committee itself foreshadowed its conclusions."[71] The report recommended the creation of a non-profit corporation which would "develop, construct, operate, manage and promote the use of communications satellites . . . ."[72] Ownership of the corporation would be limited to international communications carriers, and each international carrier which invested $500,000 or more would have two representatives on the board of directors. Three public directors would be appointed by the President of the United States, and those international carriers which

leased facilities from the corporation but did not invest in it would be represented by one director.

Western Union filed a Minority Statement with the Ad Hoc report, charging that the plan of organization, as submitted, failed to prevent domination of the corporation by AT&T. Even though AT&T would be limited to two directors, Western Union believed that because of AT&T's substantial investment in the corporation and use of the completed system, it would be able to dominate the corporation. Domination of the corporation by AT&T, Western Union believed, could be prevented only by broadening the base of ownership.[73]

Western Union's concern for possible AT&T domination was not without a solid factual basis. Of the nine international communications carriers which participated in the Ad Hoc study, only five committed themselves to an investment in the joint venture.[74] Following is a list of carriers which committed themselves and the amounts of their proposed investments:[75]

| | |
|---|---|
| American Cable and Radio (A subsidiary of ITT) | $5,000,000 |
| American Telephone and Telegraph | 65,000,000 |
| Hawaiian Telephone | 2,000,000 |
| Radio Corporation of Puerto Rico | 800,000 |
| Western Union | 5,000,000 |

Not only would AT&T be the major investor, but it would also use an estimated eighty percent of the completed system's channel capacity. AT&T's power in the

corporation would obviously exceed that of the other firms, despite limitations on its representation on the board of directors.[76]

The Subcommittee on Monopoly of the Senate Select Committee on Small Business reopened its hearings on communications satellites on November 8 to examine the Ad Hoc Carrier Committee Report. Assistant Attorney General Loevinger expressed his dissatisfaction with the report:

> I think that the general form and content of the ad hoc committee report itself leaves a great many questions unanswered, and it is my opinion that it is not, standing in the form which it is, adequate to insure that the Presidential standards will be met.[77]

He stated that if one or a few carriers were to dominate the system, regulation of equipment procurement and use of patents would not be adequate safeguards to assure expeditious development of the system. "The continuing opportunity" to favor and protect existing facilities, he stated, "would always be present. . . ."[78]

Loevinger also questioned the FCC's statutory authority to determine ownership of the system.[79] When Minow appeared before the Subcommittee the following day, Senator Long, who was dissatisfied with the FCC's handling of communications satellites and the possibility of an AT&T-dominated system, questioned him on the role of Congress in determining communications satellite policy. Minow responded, ". . . there has never been a communications satellite system before, and we would welcome congressional advice and congressional legislation, if need be, to direct us."[80]

Soon afterwards, the initiative in establishing a commercial communications satellite system passed from the Commission to Congress, where the issue would ultimately be resolved.

## Legislation

After his policy statement on communications satellites had been released, President Kennedy asked Dr. Edward C. Welsh, executive secretary of the National Aeronautics and Space Council, to study possible methods of implementing the policy. As shown earlier, the President's science advisor, Dr. Jerome Wiesner, had recommended that the communications satellite issue be discussed by high-level representatives of several government agencies. Welsh agreed with this approach, and an interagency group was formed in September 1961, consisting of representatives of the same agencies that had assisted in drafting the President's July 24 statement.[81]

The interagency group met throughout the fall of 1961 while Welsh and the NASC staff began drafting legislative proposals. Their work was stimulated by Senator Robert Kerr's announcement on November 28 that he would introduce legislation on communications satellites when Congress reconvened in January 1962. Kerr, chairman of the Senate Aeronautical and Space Sciences Committee, stated that his legislation would create a corporation owned solely by international communications carriers.[82]

On November 30, 1961 Welsh submitted a draft bill on communications satellites to each of the agencies that had participated in the interagency discussions for their comments. The draft bill authorized a private corporation with a broad ownership base. Further, there were limitations placed on the amount of stock an investor would be permitted to own, and regulation of procurement and capital structure was also included to prevent domination of the corporation by one investor.[83]

The Commission responded with its comments on December 20, 1961:

> Upon the basis of our experience and after study of the materials submitted in Docket No. 14024, we have concluded that the public interest would best be served by permitting ownership only by . . . international communications common carriers. . . .[84]

The position the Commission had taken on earlier occasions was repeated as support for its belief in only international carrier ownership. The position consisted of the following points: 1) communications via satellite will supplement and not replace existing facilities; 2) communications via satellite must be integrated into the total complex of existing communications facilities; and 3) the international carriers, because of their experience in international communications, are best qualified to operate the system.[85]

The Commission also wrote to President Kennedy on January 5, 1962 that although it was in general agreement "with most of the provisions in the draft bill, we strongly

disagree with its concept of unrestricted ownership. . . ."[86] President Kennedy, however, accepted the draft prepared by Welsh, and in his State of the Union message on January 11, 1962 announced his intention to submit to Congress "a measure to govern the financing and operation of an international communications satellite system. . . ."[87]

On the same day, President Kennedy announced his plans to submit legislation, Senator Kerr introduced in the Senate his bill (S.2650), which would provide for the establishment of a joint venture composed solely of international carriers. Kerr's bill was referred to his Committee on Aeronautical and Space Sciences.[88] President Kennedy's bill (S.2814), which provided for broad ownership, was sent to Congress on February 7, 1962 and was introduced by Senators Kerr and Magnuson, was also referred to the Committee on Aeronautical and Space Sciences.[89]

S.2814 featured two classes of common stock. Class A stock, open to the public, would have voting rights and earn dividends. Class B stock, which could be purchased only by international carriers, would not have voting rights or earn dividends. No one could own more than fifteen percent of the Class A stock outstanding at any particular time. There would be, however, no limitation on the amount of Class B stock owned by a single investor. Also, a stockholder would be allowed to vote only for two members of the nine to thirteen members of the board of

directors. Except for the ownership provisions (broad based or limited to carriers), S.2814 and S.2650 were fundamentally the same on government regulation and the functions of the corporation.[90]

Kerr's committee held hearings on both S.2814 and S.2650 on February 27, 28 and March 1, 5, 6 and 7, 1962. Nicholas Katzenbach, Assistant Attorney General, reiterated a common theme of Administration spokesmen when he stated:

> A corporation owned and operated entirely by existing communications companies, with their vast investment in present equipment, unavoidably has a possible motivation to lag in the development and actual use of means for making their present equipment obsolete.[91]

Katzenbach and other Administration spokesmen stated that a corporation with widespread ownership, subject to government regulation, would secure the advantages of competitive private enterprise and assure rapid technological progress.

The FCC, however, opposed the Administration's bill. Minow appeared before Kerr's committee on February 28 and presented a statement that had been unanimously approved by the Commission. The Commission favored the ownership structure of Kerr's bill (S.2650) and believed that the Administration's bill (S.2814) would create "serious" problems. Minow stated, "We wish to make clear that the structure of the industry proposed in S.2814 is so novel that it is impossible for us at this time to anticipate the nature of. . . regulatory problems that may be presented."[92]

On March 28, 1962 the Senate Aeronautical and Space Sciences Committee unanimously approved S.2814, the Administration's bill, with amendments. The amended bill, known as the compromise bill (Administration spokesmen preferred to call it a "modified" bill), provided for a private communications satellite corporation with stock equally divided between the public and communications carriers. The carrier stockholders would select six board members (with no carrier voting for more than three directors), and the public stockholders would select six directors. The President of the United States, with the advice and consent of the Senate, would appoint three directors. In addition, NASA, the State Department and the FCC would each supervise specific activities of the corporation.

It has been stated earlier that Senator Kerr was a proponent of a narrow base of ownership. His support of the amended S.2814 obviously marked a shift in his position. Once source indicates that Kerr's change of position

> was the result of a long series of negotiations the Senator held with Deputy Attorney General Katzenbach. Considerable pressure was brought to bear on Senator Kerr to change his attitude toward broad-based private ownership. Eventually he agreed to support the President's bill on the understanding that he could offer amendments. . . . In return for this concession the Government agreed to go along with the modifications, as long as they did not endanger the principle of broad-based ownership.93

Minow confirmed the fact that Katzenbach and Kerr held lengthy negotiations. It was during these negotiations,

Minow stated, that the idea of equal division of stock between carriers and the public was conceived.[94]

The Senate Aeronautical and Space Sciences committee favorably reported out S.2814 with amendments on April 2, 1962.[95] The bill was then referred to the Senate Commerce Committee (due to a prior agreement between Senator Kerr and Senator Magnuson, chairman of the Commerce Committee) for further consideration before being taken up by the Senate. Also on April 2, Representative Oren Harris, chairman of the House Interstate and Foreign Commerce Committee, introduced H.R.11040, which was identical to the amended S.2814.[96]

The Senate Commerce Committee held hearings on the amended S.2814 on April 10, 11, 12, 13, 16, 24 and 26. Minow appeared before the Committee on April 11 and submitted a memorandum on the Commission's preference for international carrier ownership of the proposed satellite corporation. The reasons were identical to those stated earlier by the Commission: communications by satellite will supplement, not replace existing facilities; international carriers are best qualified to operate the system; and participation by non-carriers may complicate the corporation and make it difficult to regulate.[97]

Though the Commission preferred a narrow ownership base, Minow indicated that the Commission would support the amended S.2814. Minow stated,

> Although it is our view that carrier-based ownership offers substantial regulatory advantages, we believe that S.2814 as revised. . . will provide an adequate workable framework within which our Nation's communications satellite program can go forward.[98]

When asked why the Commission decided to support the bill, Minow replied that the Commission had merely "recognized the political realities of the situation." It was obvious to the Commission, Minow stated, that the Administration and Senator Kerr had reached a compromise, and that Congress would probably accept the amended S.2814. Rather than continue to publicly oppose broadly based ownership, the Commission decided to endorse the bill. "It was less important to get precisely what we wanted, Minow stated, "than to get a bill as soon as possible."[99]

The House Interstate and Foreign Commerce Committee reported favorably on H.R.11040 on April 24, 1962, and the bill was called to the floor of the House on May 2. On the floor, Representative William Fitts Ryan offered an amendment which would provide for government ownership, but this was overwhelmingly rejected. Representative Emanuel Celler, who along with Attorney General Robert Kennedy, had testified before Harris' committee that AT&T would probably attempt to protect its existing facilities and monopolize production of hardware for the system, also expressed opposition to the bill. Celler criticized the FCC's lack of regulation of AT&T, particularly the Commission's failure to require AT&T to purchase equipment from suppliers other than Western Electric.[100] Celler commented: "AT&T has

successfully avoided regulation on earth. Divine guidance will be necessary to regulate AT&T if it is permitted to expand its domain into space."[101] Despite this opposition, H.R.11040 passed the House on May 3 by a vote of 354 to 9.[102]

H.R.11040 was then sent to the Senate, where it was referred to the Commerce Committee. The Commerce Committee modified H.R.11040, increasing the regulatory provisions. Some of these gave the FCC power over the capital structure of the corporation and regulation of competitive bidding for equipment. The Committee favorably reported the bill on June 11, 1962.[103]

The bill was brought to the floor of the Senate on June 14, where it was vigorously attacked by Senators Kefauver, Long, Gore and Morse. They argued for government ownership of the proposed system and attempted to delay action on the bill. The Democratic leadership withdrew the bill on June 21 to allow consideration of other legislation.

In the Senate on July 26 a motion was made to consider the communications satellite bill the pending business of the Senate. Senators Kefauver and Morse then led a filibuster on the motion. On July 30, after four days of the filibuster, both Democratic and Republican leaders announced they would file a cloture petition to limit debate on the motion. The bill was then referred to the Foreign Relations Committee, with instructions that it refer the bill back by August 10.[104]

The Foreign Relations Committee, which held hearings on August 3, 6, 7, 8 and 9, had three members, Gore, Morse, and Long, who were strongly opposed to the bill. However, the Executive Branch presented a "united front" of agency and department heads. The Secretaries of State and Defense made appearances in support of the bill, and the FCC firmly supported the bill. The Committee favorably reported the bill on August 10, with opposition by Senators Gore, Long, and Morse.[105]

When the bill was returned to the floor of the Senate, Senators Kefauver and Morse immediately began a filibuster. Senator Mike Mansfield, determined to get Senate action on the bill, filed a cloture petition. On August 14, 1962, for the first time since 1927, the Senate voted to invoke cloture by a vote of 63 to 27.[106] Debate was limited to one hour for each Senator, and on August 17, after Kefauver et al. had used up their time, the Senate passed the bill by a vote of 66 to 11.[107]

The bill passed by the Senate was slightly different from that passed by the House on May 3. Leaders from both Houses conferred and agreed that rather than discussing the differences in conference, the bill which had been passed by the Senate would be taken directly to the floor of the House. The House approved the bill on August 27 by a vote of 372 to 10.[108]

The bill President Kennedy signed on August 31 retained the basic provisions of the agreement between Senator Kerr

and the Administration. A private corporation, subject to government regulation, was created with stock divided equally between the public and the communications common carriers. Each group of stockholders would select six board of director members, and the President would appoint three.

## Conclusion

Urgency was a dominant theme of the events leading to the establishment of COMSAT. Minow stated that there was a widespread belief among Kennedy Administration officials that the United States could beat the Soviet Union in establishing a communications satellite system. He stated,

> We were ahead of the Russians in this area of space technology and the important thing was to establish a system before them. Other considerations such as ownership of the system were really of secondary importance. What was really important was to get the thing going as soon as possible.[109]

This statement provides a key to understanding the series of events (such as cloture) surrounding the Communications Satellite Act. It is also crucial in explaining why the Commission supported the compromise bill.

The Commission's support of the compromise bill was merely a public posture adopted due to recognition of the "political realities of the situation."[110] Though the Commission supported the bill, it had not changed its belief that ownership should be restricted to international carriers, and it continued to prefer a narrow ownership base.

Since its position on ownership did not have widespread support, the Commission realized that opposition to the compromise bill would be futile.[111]

In advocating a narrow ownership base, the Commission was a minority. This position was not advocated by other government departments and agencies, President Kennedy, or the majority of Congress. The position was shared only by certain international carriers and temporarily by Senator Kerr. When Kerr and his committee approved the compromise bill, the Commission realized its public opposition of the bill might prolong the hearings, delaying congressional action and establishment of the system.

COMSAT is a unique corporation, designed to operate with a business philosophy, but in conformity with government objectives, such as foreign policy and antitrust considerations, often different from commercial objectives. To facilitate in particular the attainment of antitrust objectives, regulatory provisions, such as regulation of competitive bidding for procurement of hardware, were included in the Act. The competitive bidding provision was a consequence of another major theme in the creation of COMSAT: a concern for preventing AT&T domination.

There was a broad consensus among both proponents and opponents of the Administration bill that AT&T would attempt, among other things, to monopolize production of the system's hardware.[112] While the Act was being debated, AT&T launched a random orbit satellite system (Telstar) and was actively

promoting its adoption. This system was not only technically inferior to the synchronous orbit system developed by Hughes Aircraft, but also required a significantly greater initial capital investment than the Hughes system required. Adoption of the AT&T system would have resulted in higher rates (the cost of equipment determines rate base), while one of President Kennedy's goals in communications satellites was to lower international communication rates. By requiring competitive bidding, a safeguard against the system's largest user and investor controlling all hardware choices was provided.[113]

Throughout the proceedings, the FCC characteristically attempted to preserve stability in the international communications carrier industry. It is apparent that the Commission's position would protect the investments of the carriers it regulated. The Commission repeatedly stated, "Under no circumstances should it [the communications satellite system] replace existing facilities. . . ."[114] It was evident to many that the Commission was attempting to protect the investments of the carriers, and the Commission was criticized, in particular, by Deputy Attorney General Katzenbach. He expressed the opinion of many Kennedy Administration officials when he stated:

> The principal evil in ownership of the system by AT&T and the other existing international carriers is that they have a vested interest in protecting the existing equipment from obsolescence. Other equipment manufacturers have a directly contrary interest in selling better equipment. There can therefore be no question

> that ownership of the system by a mixture of manufacturers and communications system operators is preferable if rapid technological progress is the desired goal.[115]

Many Administration officials feared that ownership restricted to international carriers would impede expeditious development of the system. The FCC and large carriers like AT&T and ITT saw communications satellites as a threat to existing facilities and attempted to integrate the new technology into the industry without disrupting established practices or competitive relationships. Since one of the Administration's primary goals in establishing a communications satellite system was to achieve a space "first," concern for disrupting the international communications carrier industry was secondary to a concern for rapid development. Such development, President Kennedy and the majority of Congress believed, could only be assured by a broad ownership base.

## FOOTNOTES

[1]See William M. Capron, ed., Technological Change in Regulated Industries (Washington D.C.: The Brookings Institution, 1971); and Manley R. Irwin, The Telecommunications Industry: Integration vs. Competition (New York: Praeger Publishers, 1971).

[2]See Public Law 624, 87th Cong., 2nd Sess., August 31, 1962; and Lloyd D. Musolf, Mixed Enterprise: A Developmental Perspective (Lexington, Massachusetts: D.C. Heath and Company, 1972).

[3]Foreign policy considerations of satellite communications are treated in detail by Jonathon Galloway in The Politics and Technology of Satellite Communications (Lexington, Massachusetts: D.C. Heath and Company, 1972).

[4]The author would like to express appreciation to James Morton Smith, Director of the State Historical Society of Wisconsin, for permission to use the restricted papers of Newton Minow, and to Newton Minow, who took time from a busy schedule to discuss the FCC and COMSAT.

[5]Public Law 416, 73d Cong., June 19, 1934.

[6]Rep. Emanuel Celler, Chairman of the House Committee on the Judiciary, Sen. Estes Kefauver, Chairman of the Subcommittee on Antitrust and Monopoly of the Senate Committee on the Judiciary, and Sen. Russell Long, Chairman of the Subcommittee on Monopoly of the Senate Select Committee on Small Business, were three of the most outspoken critics of the FCC communications carrier regulation in the early 1960s.

[7]The Hawaiian Telephone Company furnishes service between Hawaii and Mainland United States. However, in 1961 85% ownership of the submarine cable for this service was AT&T's.

[8]The American Cable and Radio companies include: MacKay Radio and Telegraph, Commercial Cable, All America Cables and Radio, and Globe Wireless.

[9]Several smaller firms such as Tropical Radio (a subsidiary of the United Fruit Company) and United States-Liberia Radio (a subsidiary of the Firestone Tire and Rubber Company) provide telegraph service to a limited number of overseas points.

[10]Newton Minow to Sen. John O. Pastore, 2 May 1962, p. 2, Newton Minow Papers, State Historical Society of Wisconsin (hereinafter cited as Minow Papers).

[11]Ibid., p. 3.

[12]Ibid. For a discussion of the FCC's informal negotiations with AT&T, see Charles F. Phillips, Jr., The Economics of Regulation (Homewood, Illinois: Richard D. Irwin, Inc., 1969).

[13]Ibid., p. 1.

[14]Booz, Allen and Hamilton, "Organization and Management Survey of the Federal Communications Commission," March 1962. Excerpts appear in S.Rep. 1584, 87th Cong., 2nd Sess., (11 June 1962), p. 54.

[15]Minow to Pastore, 2 May 1962, p. 4, Minow Papers.

[16]Minow to Sen. Mike Mansfield, 26 July 1962, p. 8, Minow Papers. For figures on international telecommunications revenue, 1947-1960, see U.S. Congress, Senate, Committee on Aeronautical and Space Sciences, Communications Satellites: Technical, Economic, and International Developments, Staff Report, 87th Cong., 2nd Sess., 1962, p. 29 (hereinafter cited as Senate, Staff Report, 1962).

[17]John R. Pierce, "Orbital Radio Relays, Jet Propulsion 25 (April 1955) pp. 153-157. In 1945 Arthur C. Clarke had suggested a communications satellite system in "Extra-Terrestrial Relays: Can Rocket Stations Give World-wide Radio Coverage?" Wireless World (October 1945) pp. 305-308.

[18]Senate, Staff Report, 1962, p. 192.

[19]F.R. Kappel to James E. Webb, 5 April 1961, p. 1, Minow Papers.

[20]Senate, Staff Report, 1962, p. 193. This was the first statement by an Administration official about the ownership of the communications satellite system. The ultimate decision on the ownership issue, however, was not within the NASA Administrator's power.

[21]U.S. Congress, House, Committee on Interstate and Foreign Commerce, Establishment, Ownership, Operation and Regulation of a Commercial Communications Satellite System, 87th Cong., 1st Sess., 1961, p. 102 (hereinafter cited as House, Commercial Communications Satellite System, 1961).

[22]White House Press Release, 31 December 1960, Minow Papers.

[23]Galloway, The Politics and Technology of Satellite Communications, p. 23. Galloway's statement is based on information provided by Dr. E.C. Welsh, who was executive secretary of the National Aeronautics and Space Council during the Kennedy Administration.

[24]U.S. Congress, Senate, Committee on Interstate and Foreign Commerce. Nomination of Newton N. Minow to be a Member of the Federal Communications Commission, 87th Cong., 1st Sess., 1961, p. 21.

[25]Included were representatives of the FCC, Department of State, Department of Commerce, Federal Aviation Administration, NASA, United States Information Agency, and the Army, Navy and Air Force.

[26]T.A.M. Craven to Minow, 16 February 1961, p. 5, Minow Papers.

[27]Memorandum of Understanding between FCC and NASA on Respective Civil Space Communications Activities, 28 February 1961, Minow Papers.

[28]Craven to Minow, 16 February 1961, p. 3, Minow Papers.

[29]Henry Geller to Minow, 24 March 1961, p. 1, Minow Papers.

[30]Ibid. The Department of Justice had indicated its willingness to consider joint ventures by issuing a "railroad release" to Lockheed, RCA and GT&E on February 10, 1961, allowing them to jointly study communications satellites.

[31]Ibid., p. 2.

[32]Asher H. Ende to T.A.M. Craven, 28 March 1961, Minow Papers.

[33]Minow to Lawrence F. O'Brien, 30 March 1961, p. 9, Minow Papers.

[34]Federal Communications Commission, Docket 14024, Notice of Inquiry, 3 April 1961, pp. 1-2.

[35]FCC, Docket 14024, First Report, 24 May 1961, p. 2.

[36]Ibid.

[37]Reprinted in U.S. Congress, House, Committee on Science and Astronautics, Communications Satellites, part 1, 87th Cong., 1st Sess., 1961, p. 561 (hereinafter cited as House, Communications Satellites, part 1, 1961).

[38]House, Commercial Communications Satellite System, 1961, p. 166.

[39]Wm. L. North to Minow, 15 May 1961, p. 1, Minow Papers.

[40]FCC, Docket 14024, First Report, p. 2.

[41]Ibid.

[42]Ibid.

[43]AT&T response to Notice of Inquiry, Docket 14024.

[44]FCC, Docket 14024, First Report, p. 4.

[45]Ibid.

[46]GT&E also requested that it be considered an international carrier if the Commission refused to allow participation by domestic carriers.

[47]Statement by Chairman Minow at June 5, 1961 Conference pursuant to First Report in Docket 14024, p. 1, Minow Papers.

[48]Statement by John James, reprinted in House, Communications Satellites, part 1, 1961, p. 571.

[49]Frederick G. Dutton to Minow, 9 June 1961, Minow Papers.

[50]John F. Kennedy to Lyndon B. Johnson, 15 June 1961, Minow Papers.

[51]National Aeronautics and Space Council, Satellite Policy Document, 14 July 1961, p. 5, Minow Papers.

[52]White House Press Release, Statement of the President on Communication Satellite Policy, 24 July 1961, p. 1, Minow Papers.

[53]Ibid., p. 2.

[54]FCC, Docket 14024, Supplemental Notice of Inquiry, 25 July 1961, p. 3.

[55]Memorandum for the Commission from John Nordberg, E.W. Allen, Max Paglin, 19 July 1961, pp. 13-14, Minow Papers.

[56]Ibid., p. 13.

[57]FCC, Docket 14024, First Report, p. 4.

[58]House, Commercial Communications Satellite System, 1961, p. 131.

[59]Ibid., p. 149.

[60]Ibid.

[61]Ibid., p. 154. Rather than stating that the Department of Justice had substantially modified its requirements, Loevinger preferred to say, "I have stated the conditions in a somewhat more flexible form." At p. 155.

[62]Newton Minow, interview, 1 May 1975.

[63]The four committees were: 1) Subcommittee on Monopoly of the Senate Select Committee on Small Business; 2) Communications Subcommittee of the Senate Committee on Commerce; 3) House Committee on Science and Astronautics; and 4) House Committee on Interstate and Foreign Commerce.

[64]U.S. Congress, Senate, Subcommittee on Monopoly of the Select Committee on Small Business, Space Satellite Communications, part 1, 87th Cong., 1st Sess., 1961 (hereinafter cited as Senate, Space Satellite Communications, part 1, 1961).

[65]Minow to Sen. Estes Kefauver, 26 July 1961, p. 1, Minow Papers.

[66]Rep. Emanuel Celler et al., to John F. Kennedy, 24 August 1961, p. 2, Minow Papers.

[67]Ibid., p. 3.

[68]Ibid.

[69]Lawrence F. O'Brien to Sen. Hubert Humphrey, 1 September 1961, pp. 1-2, Minow Papers.

[70]Joseph Kittner to Bernard White, 26 September 1961, p. 2, Minow Papers.

[71]Rep. Emanuel Celler to Minow, 16 October 1961, p. 1, Minow Papers.

[72]Omar L. Crook to Ben F. Waple, 13 October 1961, p. 1, Minow Papers.

[73]Report of the Ad Hoc Carrier Committee, Docket 14024, 12 October 1961, pp. 54-57.

[74]United States-Liberia Radio Corporation chose to not participate.

[75]Report of the Ad Hoc Carrier Committee, pp. 33, 34, 35, 43, and 53. RCA Communications chose to not commit itself on the size of its investment until it had more

facts on the satellite system.

[76]See Senate, Space Satellite Communications, part 2, 1961.

[77]Ibid., p. 548.

[78]Ibid., pp. 566-567.

[79]Ibid., pp. 546-722.

[80]Ibid., p. 653.

[81]Frederick G. Dutton to Dean Rusk, Robert McNamara, et al., 11 September 1961, Minow Papers.

[82]Sen. Robert Kerr, Press Release, 28 November 1961, Minow Papers.

[83]E.C. Welsh, Summary of Provisions: Communications Satellite Act, 30 November 1961, Minow Papers.

[84]Minow to Phillip S. Hughes, 20 December 1961, p. 4, Minow Papers.

[85]Ibid.

[86]Minow to John F. Kennedy, 5 January 1962, p. 1, Minow Papers.

[87]108 Cong. Rec. p. 65 (11 January 1962).

[88]Ibid., pp. 83-84.

[89]108 Cong. Rec. p. 1847 (7 February 1962).

[90]For a detailed comparison of the two bills, see Senate, Staff Report, 1962, pp. 277-279.

[91]U.S. Congress, Senate, Aeronautical and Space Sciences Committee, Hearings: Communications Satellite Legislation, 87th Cong., 2nd Sess., 1962, p. 460.

[92]Ibid., p. 203.

[93]Galloway, The Politics and Technology of Satellite Communications, p. 53.

[94]Newton Minow, interview, 1 May 1975.

[95]108 Cong. Rec. p. 5618 (2 April 1962).

[96]Ibid., p. 5611.

[97]U.S. Congress, Senate, Committee on Commerce, Communications Satellite Legislation, 87th Cong., 2nd Sess., 1962, pp. 68-70.

[98]Ibid., pp. 62-63.

[99]Newton Minow, interview, 1 May 1975.

[100]Celler was well acquainted with AT&T's procurement practices. In 1959 his Antitrust Subcommittee examined a consent decree that permitted AT&T to retain ownership of Western Electric, after a Justice Department suit had sought divestiture. See U.S. Congress, House, Committee on the Judiciary, Report of the Antitrust Subcommittee on the Consent Decree Program of the Department of Justice, 86th Cong., 2nd Sess., 1959.

[101]108 Cong. Rec. p. 7507 (2 May 1962).

[102]108 Cong. Rec. p. 7713 (3 May 1962).

[103]S. Rep. No. 1584, 87th Cong. 2nd Sess., (11 June 1962).

[104]108 Cong. Rec. pp. 15187-15788 (1 August 1962).

[105]U.S. Congress, Senate, Committee on Foreign Relations, Communications Satellite Act of 1962, 87th Cong., 2nd Sess., 1962. S. Rep. 1873 to accompany H.R. 11040 (10 August 1962).

[106]108 Cong. Rec. pp. 15398-99 (daily ed. 14 August 1962).

[107]108 Cong. Rec. p. 15874 (daily ed. 17 August 1962).

[108]108 Cong. Rec. p. 16604-15 (daily ed. 27 August 1962).

[109]Newton Minow, interview, 1 May 1975.

[110]Ibid.

[111]Ibid.

[112]It was widely known among the participants that AT&T buys virtually all of its equipment from Western Electric, and that it has refused to introduce technological innovations developed by firms other than Western Electric. See FCC, Investigation of the Telephone Industry in the United States, 76th Cong., 1st Sess., House Doc. 340, 1939, for a description of AT&T procurement policy.

[113]See Communications Satellite Corporation Prospectus 7 (1964).

[114]Bernard Strassburg to Minow, 5 September 1961, p. 2, Minow Papers.

[115]Nicholas Katzenbach, Memorandum on Ownership of Satellite Corporation,(n.d., circa 1962), p. 10, Minow Papers.